

SECTION 11131

PROJECTION SCREENS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Front projection screen assemblies.

1.02 RELATED REQUIREMENTS

- A. Section 09511 - Suspended Acoustical Ceilings: Suspended panel ceilings for recessed screens.
- B. Section 16155 - Equipment Wiring: Electrical supply, conduit, and wiring for electric motor operated projection screens.

1.03 SUBMITTALS

- A. See Section 01300 - Administrative Requirements, for submittal procedures.
- B. Product Data: Manufacturer's catalog cuts and descriptive information on each product to be used, including:
 - 1. Preparation instructions and recommendations.
 - 2. Storage and handling requirements and recommendations.
 - 3. Installation methods.
 - 4. Wiring diagrams for motor operators and actuators, and controls and switches.
- C. Samples: For screen fabrics, submit three 4 by in size.
- D. Samples: For case and frame finishes, submit three 2 by in size, illustrating color and texture of finish.
- E. Operation and Maintenance Data: Provide manufacturer's operation and maintenance instructions.
- F. Warranty: Submit manufacturer warranty and ensure that forms have been completed in VCCS's name and registered with manufacturer.

1.04 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Experienced in manufacturing products specified in this section.
- B. Installer Qualifications: Experienced in installation of the work of this section.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Deliver projection screens to project site in manufacturer's original unopened packaging. Inspect for damage and size before accepting delivery.
- B. Store in a protected, clean, dry area with temperature maintained above 50 degrees F. Stack according to manufacturer's recommendations.
- C. Acclimate screens to building temperatures for 24 hours prior to installation, or in accordance with manufacturer's recommendations.

1.06 FIELD CONDITIONS

- A. Maintain interior of building between 60 degrees F and 75 degrees F during and after installation of projection screens.

1.07 WARRANTY

- A. See Section 01780 - Closeout Submittals, for additional warranty requirements.

- B. Provide 5 year manufacturer warranty for projection screen assembly.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Bretford: www.bretford.com.
- B. Da-Lite Screen Company: www.da-lite.com.
- C. Draper, Inc: www.draperinc.com.
- D. Stewart Filmscreen Corporation: www.stewartfilmscreen.com.

2.02 FRONT PROJECTION SCREENS

- A. Manufacturers:
 - 1. Bretford: www.bretford.com.
 - 2. Da-Lite Screen Company: www.da-lite.com.
 - 3. Draper, Inc: www.draperinc.com.
- B. Front Projection Screens: Factory assembled unless otherwise indicated.
 - 1. In Classrooms: Motorized, matte light diffusing fabric screen, horizontally tensioned , ceiling recessed.
 - a. Screen Dimensions: 96 inches by 96 inches.
- C. Matte Light Diffusing Fabric: Light diffusing screen fabric; washable, flame retardant and mildew resistant.
 - 1. Material: Matte white vinyl on fiberglass backing, with nominal gain of 1.0 over viewing angle not less than 70 degrees from axis, horizontally and vertically.
 - 2. Seams: No seams permitted in fabric up to 96 inches high by 96 inches wide.
- D. Masking Borders: White, four sides.
- E. Concealed-in-Ceiling Screen Cases: Steel; integral roller brackets.
 - 1. Door Slat: Self trim; self-closing and -opening.
 - 2. Case Finish: Baked enamel.
 - 3. Case Color: White.
 - 4. End Caps: Steel; finished to match case.
 - 5. Electrically-Operated Screens: 1-1/2 inch aluminum door roller.
- F. Electrically-Operated Screens:
 - 1. Roller: 2 inch aluminum, with locking device.
 - 2. Vertical Tensioning: Screen fabric weighted at bottom with steel bar with plastic end caps.
 - 3. Horizontal Tensioning: Tab-guided cable system.
- G. Provide mounting hardware, brackets, supports, fasteners, and other mounting accessories required for a complete installation, in accordance with manufacturer's recommendations for specified substrates and mountings.

2.03 ELECTRICAL COMPONENTS

- A. Electrical Components: Listed and classified by UL as suitable for the purpose specified and indicated.
- B. Motors: Direct drive, 110 V, 60 Hz.
 - 1. Screen Motor: Mounted inside roller; three wire with ground; quick reverse type; equipped with thermal overload cut-off.
 - a. Electrical Characteristics: 1.2 amps.
 - b. Motor mounted on sound absorber.

2. Door and Adjustable Masking Motor: Mounted inside roller; three wire with ground; quick reverse type; equipped with thermal overload cut-off.
 - a. Electrical Characteristics: 1.2 amps.
- C. Controls: 3 position control switch with plate.
 1. Provide 1 control station to screen.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that substrate is finished and ready to accept screen installation.
- B. If substrate preparation is the responsibility of another installer, notify nbj Architecture of unsatisfactory preparation before proceeding.
- C. Verify that openings for recessed screens are correctly sized.
- D. Verify type and location of electrical connections.
- E. Do not install projection screens until climate control systems are in place and interior painting and other finishes are completed.

3.02 PREPARATION

- A. Coordinate screen installation with installation of projection systems.
- B. Coordinate installation with adjacent construction and fixtures, including ceilings, walls, lighting, fire suppression, and registers and grilles.

3.03 INSTALLATION

- A. Install in accordance with manufacturer's instructions, using manufacturer's recommended hardware for relevant substrates.
- B. Do not field cut screens.
- C. Install screens in mountings as specified and as indicated on drawings.
- D. Install plumb and level.
- E. Install electrically operated screens ready for connection to power and control systems by others.
- F. Adjust projection screens and related hardware in accordance with manufacturer's instructions for proper placement and operation.
- G. Test electrical screens for proper working condition. Adjust as needed.

3.04 PROTECTION

- A. Protect installed products until completion of project.
- B. Touch up, repair, or replace damaged products before Substantial Completion.

END OF SECTION